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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,905	07/11/2003	Eckhard H. Kuesters	239274US20DIV	2522
22850	7590	11/13/2006	EXAMINER	
C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			WILLIAMS, ROSS A	
			ART UNIT	PAPER NUMBER
			3714	

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/616,905		KUESTERS, ECKHARD H.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Ross A. Williams		3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments, see Notice Of Appeal, filed 6/29/2006, with respect to the rejection(s) of claim(s) 1 – 20 under combination of Englemeier in view of Barnhill in view of Stoffer have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Honey et al. (US 5,564,698) in view of Honey et al. (US 5,912,700) in view of Englemeier and Maleyko. The Examiner has decided to reopen prosecution of the case in response to the Applicant's Notice of Appeal.

The rejection of claim 2 the second paragraph of 35 U.S.C. 112 has been withdrawn in light of the Applicant's arguments.

Claims 1 – 20 are currently pending.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1 – 8 and 12 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honey et al. (US 5,564,698) in view of Honey (US 5,912,700).**

**Claims 1 and 12:** Honey discloses an electromagnetic transmitting hockey puck that comprises an electromagnetic transmitter that could include an infrared transmitter, ultraviolet transmitter, radar repeater, RF transmitter or other device for transmitting electromagnetic waves outside of the visible spectrum. The electromagnetic transmitter is turned on using a shock sensor and is turned off using a timer (Honey et al Abstract). Honey discloses a power source (Honey '698 5:5 – 12), a transmitter coupled to the power source that is configured to emit an electromagnetic signal (Honey '698 Abstract), a shock actuated switching device (Honey '698 6:4 – 10), a timing device that controls the transmission of an electromagnetic signal for a predetermined time period after actuation of the switching device (Honey '698 6:40 – 46). However Honey '698 does not disclose a golf ball comprising the above electromagnetic transmission system. However Honey '700 discloses a system that uses a similar system for determining the location of a hockey puck. Honey '700 further discloses that the transmitter that is used in a hockey puck can also be used in many other types of balls used in sports such as golf balls (Honey '700 32:26 – 36). Further, it is well known in

Art Unit: 3714

the art that golf balls have dimpled surfaces. Honey '700 teaches a radar repeater that is similar to the radar repeater as disclosed in Honey '698 and is positioned in a hockey puck. Honey '700 discloses that the golf ball can comprise any good radar repeater (Honey '700 32:28 – 32).

It would be obvious to one of ordinary skill in the art to modify Honey '698 in view of Honey '700 to provide a transmitter that is positioned in a golf ball that is well known to have a dimpled surface. This would be obvious in view of the fact that Honey '698 is directed to the tracking and locating of piece of sports equipment that is moved around a playing field such as hockey puck. Honey '700 teaches that it is also beneficial to track the movements of other objects used in different sports such as the game of golf. This would be beneficial because golf balls like hockey pucks, upon being hit can travel at a very high velocity and are relatively small thus making them difficult to track by the naked eye after being hit.

**Claims 2, 3 and 13:** Honey '698 discloses that the timing and control circuit 154 is used to detect the edge from the shock sensor and automatically turn on and off the diodes after a predetermined time (Honey '698 6:40 – 48).

**Claim 4:** Honey '698 discloses the use of a transmitter that comprises a light emitting diode (Honey '698 6:18 – 21).

**Claim 5:** Honey discloses a transmitter that comprises an antenna to transmit an electromagnetic signal (Honey '698 Fig 10).

**Claims 6, 7, 8 and 14 – 16:** Honey '698 discloses a modulator that is used in connection with an RF transmitter or a radar repeater that is embedded a hockey puck (Honey '698 3:16 – 25). Honey '698 discloses that various types of modulating can be

Art Unit: 3714

used depending on the type of transmitter that is used. One such technique is BPSK modulation (Honey '698 10:1 – 64). Honey discloses that when used with a radar repeater the system can differentiate between different pucks that are used by other players wherein the transmitted signal from the pucks are modulated at different rates thus making the transmission unique and the puck easily identifiable from other pucks. Thus, if there are multiple players in a given hockey rink, wherein each player is assigned a puck, each puck having a unique signature, (such as in a practice session) each player is by extension identified by the unique transmission that identifies the puck they are playing or practicing with.

**Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honey et al. (US 5,564,698) in view of Honey (US 5,912,700) as applied above and in view of Englemeier (US 5,423,549).**

**Claims 9 and 17:** The combination of Honey '698 and Honey '700 would yield a ball such as a golf ball that comprises an embedded transmitter that can be used to transmit electromagnetic signals that are used to track the position of a golf ball or hockey puck. The combination however fails to disclose that the transmitter contains a rechargeable battery. Englemeier discloses a golf ball transmitter that contains a rechargeable battery (Englemeier 2:28-33).

It would be obvious in view of Englemeier to provide a transmitter that contains a rechargeable battery so the golf ball can be reused upon the energy source being depleted. Thus this would save the player or game facility money, as they would not have to continuously buy new pucks or golf balls with fresh batteries.

**Claims 10, 11 and 18 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honey et al. (US 5,564,698) in view of Honey (US 5,912,700) as applied above and in view of Maleyko (US 5,228,686).**

**Claims 10, 11 and 18 – 20:** Honey '698 discloses a hockey puck that possesses LED's that are cut flush with the surface of the puck, thus the LED's are still able to communicate a signal (i.e. infrared) to the receiving station. The combination of Honey '698 and Honey '700 fails to teach the use of a transparent layer on a golf ball or puck. However Maleyko teaches the use of a ball that possesses light emitting diodes that are used embedded within a transparent layer. Thus the signal (i.e. light) from the LED's can still be transmitted from the ball and still be contained and protected from shock or other external disturbances (Maleyko abstract Fig 2 and 3). Although Maleyko discloses the use of light, one of ordinary skill in the art would be motivated to modify Honey '698 and Honey '700 to provide a ball with a transparent coating that enables the transmission of a signal from an LED, whether that signal is visible light or light of a different wavelength that is not visible to the naked eye, because this would provide a layer of protection to the inner components of the ball or puck while still allowing the transmission of light signals.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1 – 20 have been considered but are moot in view of the new ground(s) of rejection.


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ross A. Williams whose telephone number is (571) 272-5911. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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